

Abstract

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[0020] The present invention relates to an adjustable, locking tie down system for flat bed trailers. The tie down system comprises at least one groove within the floor of the truck trailer. Each groove has a flange extending inward on either side of the groove. One of the flanges has a plurality of notches formed in it. The system includes at least one tie down member comprising an anchor hook insertable into the groove wherein the hook registers against an anchor flange opposite the flange having the plurality of notches. Each tie down member further comprises at least one boss extending therefrom which is positioned and sized to engage at least one of the notches in the notched flange in a manner preventing the tie down member from sliding along the groove. A tie down chain or cable is attached to the tie down member in a manner to secure a load to the floor of the truck trailer. The tie down system further comprises at least one winch rail on either side of a truck trailer. A plurality of winches are slideably attached to at least one winch rail. The winches can be positioned at any location along the winch rail. Each of the plurality of winches comprises a tie down strap and a corresponding tie down strap spool slideably attached to at least one winch rail on the other side of the truck trailer. Each of the winches is used to tension a tie down strap for securing a load to the floor of a truck trailer. The slideability of the winches allows the tie down straps to be massed in one or more locations to enable more than one strap to be used on a heavy load which is not long enough to be secured using fixed tie down straps.